

SECTION 606 -- CONCRETE CURB AND CONCRETE GUTTER

606.01 -- Description

The Contractor shall furnish all materials and construct concrete curb, combination concrete curb and gutter, and concrete gutter as prescribed in the plans. This Section shall not include integral curb that is covered under Section 603.

606.02 -- Material Requirements

1. The Contractor shall furnish all materials to construct the curbs and gutters.
2. The concrete Class shall be specified in the contract bid proposal Schedule of Items.
3. The concrete shall conform to the requirements of Section 1002.
4. Preformed joint filler shall conform to the requirements of Section 1015.

606.03 -- Construction Methods

1.
 - a. The Contractor shall prepare the curb and gutter subgrades by excavating or filling with suitable material to the required depth below the finished surface in accordance with the dimensions shown in the plans.
 - b. All soft and yielding or other unsuitable material shall be removed and replaced with suitable material.
 - c. The material shall be compacted thoroughly by tamping or rolling and finished to a firm, smooth surface.
 - d. If necessary, water shall be added by sprinkling to facilitate compaction.
 - e. Concrete shall be deposited upon a thoroughly moistened subgrade.
2.
 - a. Forms shall be metal, straight, free from warp, and of sufficient strength to resist the pressure of the concrete and vibration.
 - b. Wood forms or curved metal forms shall be used for curves having a radius of less than 100 feet.
 - c. Forms shall be used for both the inside and outside faces of curbs. The inside forms shall conform to the dimensions shown in the plans and shall allow secure fastening to the outside form.
 - d. When pavement has already been constructed, the front gutter form shall be omitted.
3. Slip-form techniques are acceptable.
4. When concrete is being placed and consolidated in the curb and gutter, the face of the curb shall be formed with fixed or movable forms and shall have dimensions that will conform to the dimensions shown in the plans.
5.
 - a. The forms shall be neatly and tightly joined and then securely pinned and staked to line and grade.

b. The forms shall be thoroughly tamped on both sides with a special tamping tool approved by the Engineer. The tamping shall be completed at least 200 feet ahead of the point where concrete is being placed.

6. All forms shall be thoroughly cleaned and oiled before concrete is placed against them. Forms that have become worn, bent, or broken shall not be used.

7. a. The Contractor shall place the concrete on the prepared subgrade so that there will be no segregation of the concrete mortar and aggregate.

b. The concrete in curbs and/or gutters shall be deposited full depth in one operation and shall be consolidated immediately after being placed with an internal vibrator.

8. a. The Contractor shall finish the exposed surfaces with a wooden or cork hand float.

b. The Contractor shall finish concrete gutters in accordance with the requirements of Subsection 603.03.

c. The edges of the curb face and backs are to be rounded in accordance with the details shown in the plans.

9. a. Templet joints are to be opened with a double edger while the concrete is still plastic.

b. Preformed joint filler shall be placed at locations and in accordance with the details shown in the plans and double-edged while the concrete is plastic.

10. Forms may be removed 12 hours after the concrete has been placed. All honeycomb areas or small defects shall be properly pointed with mortar (1 part cement and 2 parts sand). Any surplus concrete at the edges of joints shall be cut away for the full depth of the concrete. The edges shall then be banked with moist earth to a width of at least 6 inches beyond neat lines.

11. The Contractor shall cure concrete by one of the methods prescribed for curing concrete pavement in Subsection 603.03.

606.04 -- Method of Measurement

1. The quantity of curb and combination curb and gutter will be measured in linear feet.

2. The quantity of concrete gutter will be measured in square yards.

606.05 -- Basis of Payment

1. Pay Item	Pay Unit
Concrete _____ Curb Type _____	Linear Foot (LF)
Concrete _____ Curb _____	Linear Foot (LF)
Concrete _____ Island Curb _____	Linear Foot (LF)
Concrete _____ Median Curb _____	Linear Foot (LF)
Concrete _____ Barrier Curb _____	Linear Foot (LF)
Combination Concrete _____ Curb and Gutter _____	Linear Foot (LF)
Concrete _____ Gutter	Square Yards (SY)

2. In the event that concrete curb or combination concrete curb and gutter on the project are constructed to more than one cross section, an appropriate designation will be added to the pay item to differentiate the type or dimension required.

3. a. The 28-day compressive strength of each day's production will be determined from cylinder strength tests.

b. Payment shall be reduced by the amount prescribed in Table 603.02.

c. (1) The Contractor has the option to take 3 core samples at no additional cost to the Department. The average compressive strength of these cores will be used to determine the actual 28-day compressive strength of each day's production.

(2) Cores must be taken within 45 days from the date the concrete was poured.

(3) The Engineer shall select the site where the cores will be taken.

4. Payment is full compensation for all work prescribed in this Section.